7-channel Darlington transistor array

BA6250/BA6250F/BA6251/BA6251F

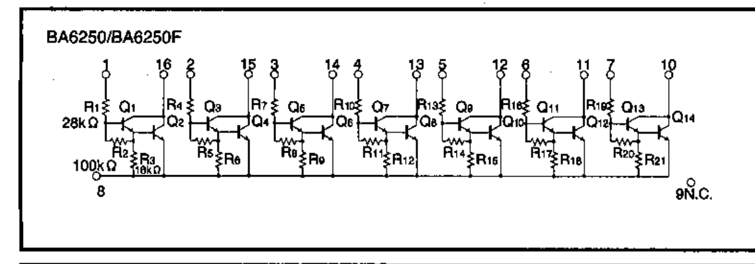
The BA6250, BA6250F, BA6251, and BA6251F are 7-channel transistor arrays particularly suitable for interfaces between a microcomputer in a VTR and the various ICs, or between one IC and another, and for low current drives such as LEDs.

●Features

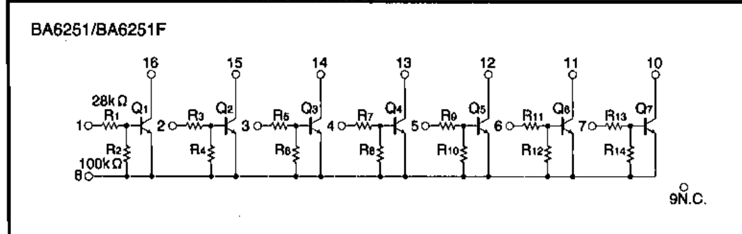
1) High withstanding output voltage of 30V (max.).
2) Output current of 20mA max. (V_{IN} ≧ 3V).

●Internal circuit configuration diagram

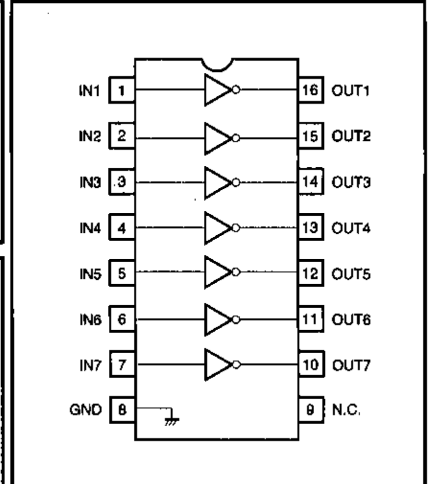
BA6250/BA6250F



BA6251/BA6251F



●Block diagram



●Absolute maximum ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Power supply voltage	V_{CEO}	30	V
Power dissipation	Pd	500 *	mW
Operating temperature	Topr	−25~75	℃
Storage temperature	Tstg	−55~125	℃
Input voltage	V_{IN}	30	V
Output current	$I_{O\,Max.}$	30	mA

* Reduced by 5mW for each increase in Ta of 1°C over 25°C.

●Electrical characteristics (unless otherwise noted, Ta=25°C, Vcc=12V)

Parameter	Symbol	Type	Min.	Typ.	Max.	Unit	Conditions	Measurement Circuit
Output power supply voltage range	V_O	BA6250 / BA6250F	—	12	28	V	—	Fig. 1
		BA6251 / BA6251F	—	12	28		—	
"H" input voltage	V_{IH}	BA6250 / BA6250F	3	—	—	V	I_{OUT}=20mA	Fig. 1
		BA6251 / BA6251F	2	—	—		$I_{OUT}\geqq$1mA	
"L" input voltage	V_{IL}	BA6250 / BA6250F	—	—	0.6	V	$I_{OUT}\leqq$10 μA	Fig. 2
		BA6251 / BA6251F	—	—	0.3		$I_{OUT}\leqq$10 μA	
Output voltage	V_{OUT}	BA6250 / BA6250F	—	—	1.4	V	I_{OUT}=20mA, V_{IN}=12V	Fig. 1
Output saturation voltage	$V_{CE(sat)}$	BA6251 / BA6251F	—	0.3	—		I_{OUT}=10mA, V_{IN}=12V	
Output current	I_{OUT}	BA6250 / BA6250F	—	—	20	mA	$V_{IN}\geqq$3V	Fig. 1
		BA6251 / BA6251F	—	—	20		$V_{IN}\geqq$12V	
Input current	I_{IN}	BA6250 / BA6250F	—	—	0.6	mA	I_{OUT}=10mA, V_{IN}=12V	Fig. 1
		BA6251 / BA6251F	—	—	0.6		I_{OUT}=10mA, V_{IN}=12V	
Output leakage current	I_L	BA6250 / BA6250F	—	—	1	μA	V_{CC}=28V, V_{IN}=0V	—

●Measurement circuits

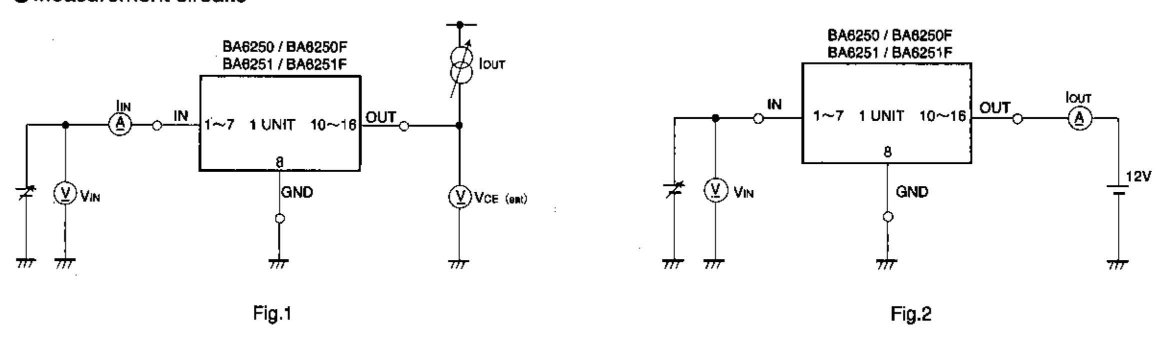


Fig.1 Fig.2

●External dimensions (Units: mm)

